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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,138	11/09/2001	N. Lennart Eriksson	LAGROTH-025	7720

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EXAMINER

YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/890,138	Applicant(s) ERIKSSON ET AL.	
	Examiner Sam Chuan C. Yao	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luck et al (US 4,275,027) in view of Bonomo et al (US 5,993,709).

At the outset, a preamble language of "... *for continuously providing profiled lignocellulose-containing boards*" recited in claim 9 merely provide a statement of purpose or intended use. In other words, it fails to give a necessary life and meaning, and vitality of claims 9. For this reason, the language in the preamble was not given any patentable weight.

Luck et al, drawn to a process of making a profiled lignocellulosic fiber board, substantially discloses the process recited in claims 9 and 12-13 (col. 5 lines 6-58; col. 5 lines 4-62; claim 1; figures 1-7). Luck et al differs from claims 9 and 12-13 in that, Luck et al does not teach using a steam injection molding press.

However, it would have been obvious in the art to use a steam injection molding press in a process taught by Luck et al, because Bonomo et al teaches using steam injection press to speed-up the curing time, allow the use of high temperature curing resin, and "*which may be cheaper, safer and/or result in a stronger bond product*" than a conventionally press board (col. 2 lines 10-46).

Note: a dry process taught by Luck et al intrinsically requires subjecting ligno-cellulose particles to a drying operation. See, for example, the references cited in numbered paragraph 4 below.

With respect to claim 10, see column 5 lines 6-51 of the Luck et al patent.

With respect to claim 11, it is conventional in the art to subject a fiber mat to a prepressing operation, before it is subjected to a final pressing operation.

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 2 as applied to claim 1 above, and further in view of Frankefort et al (US 6,500,372 B1).

Since it is old in the art to form a fiberboard panel having opposing profiled surfaces as exemplified in the teachings of Frankefort et al (abstract; figures 1-3), this claim would have been obvious in the art.

4. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau et al (US 4,904,517) in view of (Markessini et al (US 6,346,165) or Frati (US 5,792,264)), DE 2950795 A, Bonomo et al (US 5,993,709) and Tisch et al (US 5,433,905).

At the outset, the phrase "*mat with a predetermined surface profile*" is taken to require a mat with a non-planar surface.

Lau et al, drawn to making ribbed waferboard, substantially teaches the process recited in claim 9. Lau et al differs from claim 9 in that: a) it is unclear whether Lau teaches drying the binder-coated wood particles in a mat (30), b) Lau does not appear to teach making a ribbed waferboard continuously; and c) Lau does

not teach steam pressing an uncured ribbed mat. It should be noted that, Lau et al is taken to disclose "*providing at least one of said pair of outer surfaces of said mat with a predetermined surface profile*" by depositing a plurality of spaced discrete ribs (34) onto an outer surface of the mat (30).

With respect to "a", such would have been obvious in the art as such is notoriously well known in the art as exemplified in the teachings of Markessini et al (col. 1 lines 33-45) or Frati (claims 1, 4 and 19; figure 3) in order to provide wood particles with a desired moisture content.

With respect to "b" and "c", it would have been obvious in the art, motivated by the desire to improve production efficiency, to continuously make a ribbed waferboard by continuously subjecting an uncured ribbed mat to a steam injection press modified to accommodate the ribbed mat, by superimposing one of the two platen surfaces with an insert to form an alternating land and valley; because: a) Lau et al teaches modifying a conventional fiberboard heat-press by providing an insert to a surface of a platen so as to form an alternating land and valley so that the surface of the platen corresponds to the profiled surface of an uncured ribbed mat, wherein the modified heat-press is used for curing a ribbed mat (col. 5 lines 1-20); b) it is old in the art to continuously form a profiled surface onto a continuous lingo-cellulose fiber mat using a dual band press as exemplified in the teachings of DE '795 (2 English abstracts; figures 1 and 3); c) Bonomo et al teaches using steam injection press to speed-up the curing time, allow the use of high temperature curing resin, and "*which may be cheaper, safer*

and/or result in a stronger bond product" than a conventionally press board (col. 2 lines 10-46); and, d) Tisch discloses a process of continuously making particle boards using a steam injection press where an uncured fiber mat is subjected to heat-pressing operation using platens (col. 2 lines 24-31; claims 1-5; figures 1-4). With respect to claim 10, the recited density range for a fiber mat is conventional in the art of making ribbed boards.

With respect to claim 12, although not explicitly disclosed, the uncured ribbed mat taught by Lau et al appears to be sliced into a plurality of discrete ribbed mats before they are heat-pressed into ribbed boards as illustrated in figure 6. In any event, it would have been obvious in the art to sliced a continuous uncured ribbed mat into a plurality of discrete ribbed mats before they are heat-pressed in a steam-injection press, because: a) it is old in the art to heat-press discrete mats in a pair of belt press, and, b) it is taken to be well within the purview of choice in the art to choose on whether to heat-press a continuous ribbed mat or discrete ribbed mats in a steam injection press. None, but only the expected result of forming ribbed boards would have been achieved.

5. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 4 as applied to claim 9 above, and further in view of WO 97/04933.

With respect to claim 11, it would have been obvious in the art to pre-compress an uncured ribbed mat, because it is conventional in the steam-pressing art to pre-compress a fiberboard before it is subjected to a final heat-pressing

operation to form a resultant board as exemplified in the teachings of WO '933.

All that would have been needed is to modify pre-compressing roller (2) disclosed my WO '933 by using a profiled roller so that the surface would correspond to the profiled surface of an uncured mat.

With respect to claim 13, see figures 2-3 of the WO '933 patent.

Response to Arguments

6. Applicant's arguments with respect to claim 9 has been considered but are moot in view of the new ground(s) of rejection.

Conclusion


7. In light of a new ground of rejection, the finality of the previous Office action is hereby **withdrawn**.

WO 00/67972 A1 is cited as reference of interest showing a continuous process of forming a profiled lingo-cellulose fiber board.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
06-26-04